METALLURGIA—Index to Volume LXXIII

Published by the Kennedy Press, Ltd., 31 King Street West, Manchester 3.

JANUARY—JUNE 1966

LEADERS

Iron and Steel Productivity... ... 197
Management Needs the Researcher 51-52
Nickel Expansion 99-100
Outlook for Steel 1-2
Research and Development in Iron and Steel 147-148
Science Planning 251-252

ARTICLES

A

Aluminium Casting Alloys. Improved High-Strength, By A. P. Bates, J. Ridley and D. G. Hunt 101-110
Aluminium, (Polycrystalline). The Effect of Grain Orientation on the Deformation Characteristics of, By P. G. Williams 163-164
Armstrong Stevens. Dynapak Installation at (High Energy Rate Forming) 11-14
Austenitic Stainless Steel Plate. High Proof, By J. I. Morley ... 223-226
Austenitic Stainless Steels. The Effects of Continuing Reduction of Carbon Content in, By I. D. G. Berwick 218-222

B

Birmingham University and D.F.R.A. Share Contract for Development. (Petro-Forge High Energy Rate Forming) ... 25-27
Bright Annealing Stainless Steel Strip 75-76
Brightside Merchant Bar and Rod Mill for Dosco Steels Limited ... 70-72

C

Carbon Content in Austenitic Stainless Steels. The Effects of Continuing Reduction of, By I. D. G. Berwick 218-222
Continuing Reduction of Carbon Content in Austenitic Stainless Steels. The Effects of, By I. D. G. Berwick 218-222
Copper and Copper Alloy Pickling Plant. Waste Treatment and Metal Recovery in, By Dr. L. E. Lancy and R. Pinner... 119-122
Correction 170
Cu-Ni-Craft. New Plating Plant at, (Cadmium, Zinc and Tin Lines Installed) 19-23

D

Deformation Characteristics of Polycrystalline Aluminium. The Effect of Grain Orientation on the, By P. G. Williams 163-164
Development of Tungsten-Base Alloys for High Temperature Service 8-10
Diecasting Foundry Expands. Midlands 155-158
Dosco Steels Limited. Brightside Merchant Bar and Rod Mill for 70-72

E

Effect of Grain Size on the Creep Rate of a Cr-Ni Austenitic Steel. The, By J. Myers and G. Willoughby 3-7
Electrochemical Machining Advances. High Degree of Accuracy Attainable 5-18
Electron Metallography. Industrial Applications of, By M. A. P. Dewey 111-117, 149-154
Electroslag Refining. Miniature Scale, By P. Dewsnap 257-259
Elegant Example of the Tungsten "Water Cycle". An, By G. L. Davis and T. Whitehouse... ... 77
Eminent Metallurgist and Chemist. By M. Schofield 64-66

F

Furnace Installations. Recent Heat Treatment 263-283

G

Grain Orientation, The Effect of, on the Deformation Characteristics of Polycrystalline Aluminium. By P. G. Williams ... 163-164

H

Harperizers at the Singer Manufacturing Co., Ltd. 198-199
Heat Resisting Steels. Welding of Stainless and, By D. Slater ... 211-217
Heat Treatment Furnace Installations. Recent 263-283
High Energy Rate Forming. Dynapak Installation at Armstrong Stevens 11-14
High Proof Austenitic Stainless Steel Plate. By J. I. Morley ... 223-226

I

Imperial Smelting Process. The, ... 159-161
Improved High-Strength Aluminium Casting Alloys. By A. P. Bates, J. Ridley and D. G. Hunt 101-110
Industrial Applications of Electron Metallography. By M. A. P. Dewey 111-117, 149-154

L

Liquid Metals. Thin Metal Films and the Theory of, By T. C. Toye 67-69

M

Machining Advances. Electrochemical, (High Degree of Accuracy Attainable) 15-18
Metallurgical Development. Statistical Method in, By W. E. Duckworth... 53-63
Metallurgist and Chemist. Eminent, By M. Schofield 64-66
Miniature Scale Electroslag Refining. By P. Dewsnap 257-259

N

New Strip Steel for Product Economy. A 171-172
Correction 259

P

Petro-Forge High Energy Rate Forming. Birmingham University and D.F.R.A. Share Contract for Development 25-27
Plating Plant at Cu-Ni-Craft. New, Cadmium, Zinc and Tin Lines Installed 19-23
Powder Compacting Presses. New Line of 167-169
Proler Scrap Treatment Process ... 260-262

S

Scrap Treatment Process. Proler 260-262
Singer Manufacturing Co., Ltd. Harperizers at the 198-199
Stainless and Heat Resisting Steels. Welding of, By D. Slater 211-217
Stainless Steel (Austenitic) Plate. High Proof, By J. I. Morley ... 223-226
Stainless Steels (Austenitic). The Effects of Continuing Reduction of Carbon Content in, By I. D. G. Berwick 218-222
Stainless Steel in 1965. By E. Elliott 201-210
Stainless Steel—Its Origin. By A. G. Larkin 165-166
Stainless Steel Street Furniture. By R. H. White 227-232
Stainless Steel Strip. Bright Annealing, New Techniques Incorporated in Vertical Heating Equipment 75-76
Statistical Method in Metallurgical Development. By W. E. Duckworth 53-63
Steel. The Effect of Grain Size on the Creep Rate of a Cr-Ni Austenitic, By J. Myers and G. Willoughby 3-7
Strip Steel for Product Economy. A New, ... 171-172
Correction 259

T

Thin Metal Films and the Theory of Liquid Metals. By T. C. Toye 67-69
Tube Production in Highly Mechanised Mill 253-256
Tungsten-Base Alloys for High Temperature Service. Development of 8-10
Tungsten "Water Cycle". An Elegant Example of the, By G. L. Davis and T. Whitehouse ... 77

W

Waste Treatment and Metal Recovery in Copper and Copper Alloy Pickling Plant. By Dr. L. E. Lancy and R. Pinner 119-122
Correction 170
Welding of Stainless and Heat Resisting Steels. By D. Slater ... 211-217

LABORATORY METHODS

Aluminium in Aqueous Solutions Containing Sulphate and Other Ions. A Potentiostatic Examination of, By T. C. Downie and C. W. Goulding 93-97
Aluminium in Aqueous Solutions of Chlorides and Bromides. A Potentiostatic Examination of the Properties of, By T. C. Downie and C. W. Goulding ... 45-47
Analysis of Pyrites Residues as Used in the Iron and Steel Industry. The, By T. S. Harrison and W. W. Foster 141-146, 191-195
Automatic Inclusion Counter ... 248-250
Bureau of Analysed Samples Limited 301
Diamond Abrasive. Nitrogen-Doped Synthetic 190
Extensometer for Recording Tensile Load/Elongation Curves to Fracture. By R. A. Bessent and P. J. Howard 187-190

Hardness Indentations (Vickers). The Measurement of, By Jill G. Wood and R. S. Marriner ... 297-300
Inclusion Counter. Automatic ... 248-250
Measurement of Vickers Hardness Indentations. The, By Jill G. Wood and R. S. Marriner ... 297-300
Metallurgy Building. Sheffield University's New 245-247
Microscope. The Scanning Electron, Complementary to Earlier Instruments 48-50
Murex Welding Research Laboratories. New Equipment for ... 146
Nitrogen-Doped Synthetic Diamond Abrasive 190
Potentiostatic Examination of the Properties of Aluminium in Aqueous Solutions Containing Sulphate and Other Ions. A, By T. C. Downie and C. W. Goulding 93-97
Potentiostatic Examination of the Properties of Aluminium in Aqueous Solutions of Chlorides and Bromides. A, By T. C. Downie and C. W. Goulding ... 45-47
Pyrites Residues. The Analysis of, as Used in the Iron and Steel Industry, By T. S. Harrison and W. W. Foster 141-146, 191-195
Scanning Electron Microscope. The, Complementary to Earlier Instruments 48-50
Sheffield University's New Metallurgy Building 245-247
Tensile Load/Elongation Curves to Fracture. Extensometer for Recording, By R. A. Bessent and P. J. Howard 187-190
Tensile Testing of Wire. A Technique to Facilitate, By B. A. James and A. Morgan 98
Thin Suction Samples Speed Analytical Control at Steel, Peech and Tozer 302
Wire. A Technique to Facilitate Tensile Testing of, By B. A. James and A. Morgan 98
X-Ray Diffraction Patterns. Rapid Recording of 195-196

SHORT ARTICLES

Advice on Pressure Vessel Manufacture 283-284
Alloys. Murex Step up Production of Master 10
Automated Copper Billet Heating Plant 7
Belting in Mozambique. Five Miles of Scottish 174
Boost for Chromium Plating Quality 72
Carbon Moulding at Kinlochleven 66
Ceramic Coatings. Service Fused 259
Chromium Plating Quality. Boost for 72
Computers Cut Time Lag in Steel Deliveries 73-74
Copper Billet Heating Plant. Automated... 7
Descaling the "Lord Warden" ... 233
Efco Headquarters Move to Sheerwater 169-170
Fully Automatic Rocking Head Cold Circular Saw 28-29
Furnace. High Temperature Vacuum 30
Furnace Modernisation. Press Shop 29-30
Golden Jubilee. Stein Atkinson Stordy... 63
Hardening Furnace for Small Steel Balls 173
Heat Treatment Symposium ... 161-162
High Temperature Vacuum Furnace 30
Kinlochleven. Carbon Moulding at 66
Maintenance-Free Finish for Plant 173-174
Murex Step up Production of Master Alloys 10
Press Shop Furnace Modernisation 29-30
Pressure Vessel Manufacture Advice on 283-284
Saw. Fully Automatic Rocking Head Cold Circular 28-29
Service Fused Ceramic Coatings... 259
Short Cycle Vacuum Brazing Furnace 117-118
Steel Balls. Hardening Furnace for Small 173
Stein Atkinson Stordy Golden Jubilee 63
Vacuum Brazing Furnace. Short Cycle 117-118

NEWS AND ANNOUNCEMENTS

ALARS Officers Elected 286
Acheson Colloids. Expansion for 190
Alcan Aluminium Limited 126
"All-purpose" Galvanising System 128
Alloy Steel Rods Limited. The Creation of 262
Alumina Plant Improvements Increase Exports 300
Aluminium Alloy Replaces Wrought Iron 123
Aluminium Helmet 31
Aluminium Stockholding Expansion 178
Aluminium. Vitreous Enamels for 233
Americans Buy Sheppards of Bridgend 81
Apex Construction Limited ... 288
Arc Melting Furnace Ordered from G.W.B. 166
Armohibs 81
ASEA-SKF Process of Steel Production. The 33-34
Avnet-Shaw Award. Two Japanese Receive First 76
B. Elliott Launch New Company 256
B.I.C.C. Factory. New 256
B.N.F. Director. New 285
B.N.F. Director's Overseas Visits in 1966 31
B.S.I. Central Planning Group ... 175
B.W.R.A. Appoints Education Chief 125
B.W.R.A. Welding Recaps ... 176
Birlec Furnace for Italy. Large ... 34
Birlec Order for China 32
Birmingham Metallurgical Society 285
Blast Furnace. First North African 32
Bogie Rail Tank Car. 90 ton ... 158
British Standards. New and Revised 24, 78
Bullblock for Spain 31-32
C.D.A. Conference on Copper Alloy Castings 79
Careers in Technology. £10,000 to Stimulate Interest in... 286
Centrifugal Castings Order... ... 226
Change of Address 237
Change of Name 122
CO_2 Welding Film. New 50
Cobalt Information Centre 34
Coil Coating Order for Carrier-Drysys Group 18
Computer Control of Soaking Pits 236-237
Computer for B.I.S.R.A. A New... 250
Conference. B.S.I. Standards ... 178-179
Conference. Casting Film at ... 177-178
Conference. Copper Castings ... 285-286
Conference. Eighth International Galvanising 23
Conference. Energy Beams ... 127-128
Conference. Ergonomics 125
Conference. International Student 175
Conference. Lubrication Education 286
Conference. Paris Tin 175
Conference. Particle Size Analysis 98
Conference. Port Kembla Metals 127
Conference. Safety 286
Conference. Spectroscopy and Automation 127
Conference. Spring Makers' ... 284
Conference. X-Ray Spectrochemical 285
Consett. Last Open Hearth Shut Down at 32-33
Controlling Marine Growth on Ships' Hulls 177
Davy-Ashmore Steel Plant Activities Move... 128
Davy-United Rolling Mill for South Africa 124
Development Scheme (£68 Million) at Appleby-Frodingham 287-288
Diecasting Research Grant ... 175-176
Dorman Long Universal Plate Mill 110
Dow Introduces Mag-Coke in Europe 97
Dust-Free Air Supply. Special Measures to Ensure 162
Dynapak Installation. Induction Furnace for 118
Dynaweld Enters Service 164
E.S.C. Beats Delivery Date 27
E.S.C. Bogies for Car Transporters 126
E.S.C. Crankshafts for B.R.N.... 128
E.S.C. £250,000 Laboratories for 47
E.S.C. Track Links for Antarctic Survey 234
Economics of Cold Extrusion ... 74
Efco Move 31
Electric Furnace Transformers for Steelmaking 14
Electrical Usage of Aluminium Accelerated 178
Electro-Slag Refining Technology Unit 287
Electron Beam Welding 176-177
Engelhard Move Out 128-129
Engineering Experience in Basic Oxygen Steelworks 79
European Industrial Research Management 287
European Office for Machinery Dealers 179
Export Orders 127
Extrusion Press Installation for Lancashire Plant. New 3,500 ton 252
Extrusion Press Sales by Loewy. More 178
Finance and Investment 179
Follsain-Wycliffe Foundries Expansion 82
Foundry Automation at G. Clancey Limited 236
French Nuclear Tubes Order for British Firm 177
Furnace Order—£20,000 122
Furnace Repeat Order 81
G.W.B. Furnaces Limited 177
Gas Cleaning Unit Demonstrated to Alkali Inspectorate 80
Guide to S.I. Units. New 127
Head Wrightson Tube Mill for T.I. 178
High-Strength Stainless Steels on Show 237
Higher Fatigue Strength for Welded Tubes 235-236
Honer. Heavy Demand for New Dry 33
Hydrostatic Extrusion Design Study Contract 175
I.M.I. Zirconium for Winfrith Reactor 199
I.S.I. Medals and Prizes 217
Induction Furnace for Dynapak Installation 118
Induction Heating Furnace Orders 287
Industrial Fellowship Award ... 127
Industrial Studentship Scheme, New 175

Information and Consultancy Services 77
Institute of Metals Awards 32
Institute of Metals Spring Meeting 125
International Nickel in Sweden ... 162
Iron and Steel Federation Fellowships 285
James Booth to Open New Works 235
John G. Stein. Export Order for... 32
John Summer's £4,000,000 Plans Approved 34
K.E. Tool Steels Stocked in Manchester 30
Kent Instruments in Austrian Wire Rolling Plant 33
Labelling Scheme for Vitreous Enamel 148
Laboratory of the Government Chemist Open Days 288
Laser Beam Welding at B.W.R.A. 222
Lecture Courses 176
Lecture on P.R.S. Steels 235
Lecture Course on Steel Castings 80
Licensing for S.G. Iron Producers. New 300
Lubrication and Wear Convention in Holland 176
Lubrication, Engineering Aspects of 80-81
M.E.L. Consolidate at Crawley ... 50
Maraging Steel for Car Bolts ... 76
Mechanisation and Automation of Component Heat Treatment 80
Meeting Diary 2, 52, 100
Metal Finishing Technician's Certificate Examination 33
Metal Spraying Aids Air Safety ... 262
Metallurgical Abstracts 124
Metallurgical Significance of Modern Production Techniques 125
Metric Conversion Slide from B.S.I. 177
Microscopes. Servicing of 97
Microvac Pumps in Production ... 234
Miles Druce Plans for Stainless Steel 31
Modern Furnaces and Stoves Move 162
Murex Welding Research Laboratories. New Equipment for ... 146
N.P.L. Steering Committee... ... 232
News in Brief 154, 232, 250
Nickel Alloy Steel Mining Bit ... 33
Nu-Way Burners for Finland ... 234
Obituary... 238
P.M.D. Produce New Copper Etchant 18
Patent Office Library Exhibition... 79
PERA Conference on Production Engineering and Management 81
Personal News 34-36, 83-84, 129-130, 179-180, 237-238, 288
Physics Exhibition 1966. The ... 125-126
Polish Forging Press Order. Second 2
Polish Machinery News 124
Post Graduate Course in Science of Founding 82
Postgraduate Training Award Scheme. New 236
Press Equipment Ordered 164
Professor Pisik Eighty 286
Pyrene Move 148
Radioisotopes and Equipment. Selection of 146
Rail Electrification Completed. London-Lancashire 34
Record Steelmaking Output ... 302
Research Laboratory Orders Special Furnace 196
Research on Welding Galvanised Steel 236
Rolling Mill at Fusina. New ... 123-124
S.C.O.W. Saves Tin 122
S.G. Iron Production Record ... 148
S.T.C. Cable Plant Expands ... 247
Samuel Fox. £200,000 Billet Inspection Unit at 79-80
Scandinavian Lead Zinc Association 176
Scotland—U.S.A. Refractory Co-operation 128
"Seaworthy with CO_2 Welding"... 196
Sheet-Metal Forming Research ... 287
Sintered Carbide Inserts for Tyre Studs 235
Slab Milling Machine Order ... 235
Slabs for Argentina 124
Slitting Line for 42 in. Wide Strip 126
Sonatest Ultrasonic Flaw Detectors 177
Southern Forge Limited 128
Soviet Iron and Steel Industry Fulfils Plan 74
Soviet Metallurgist for "Micro '66" 252
Stainless Steel Design Competition 286
Stainless Steel Plate Stretcher ... 122
Stainless Steel Sales Office Opened 226
Stainless Tube for Magnetic Level Indicators 210
Steels for Cold Extrusion Punches 14
Stewarts and Lloyds. £4 Million Tube Plant for 82
Study of Problems of Automation 236
Swedish Furnace Rollers to be made in U.K. 176
Symposium on Castings in Welded Fabrications 31
Symposium on Friction and Wear 178
Tankers for Cryogenic Fluids ... 10
Technical Books and Visual Aids 128
Technological Education. A New Concept in 177
Thermometal 31
Tube and Pipework Orders. £4 Million 122
Under-Water Gas Pipeline 226
Unicam Factory. New 196
Unicam Spectrophotometers in the U.S.A. 118
Union Carbide Enter U.K. Welding Scene 126-127
Universal Plate Mill. Dorman Long 110
Urquhart's Open Northern Office 176
Vacuum Technology Symposia ... 237
Vitreous Enamels for Aluminium 233
Vitreous Enamel. Labelling Scheme for... 148
W.H.A. Robertson Medal 128
Welded Tubes. Higher Fatigue Strength for 235-236
Welding at B.W.R.A. Laser Beam 222
Welding Technology. M.Sc. Course in 81-82
Wellington-Gibbons Merger ... 82
Wellman Controls Limited 166
Wellman Crane Agreement... ... 146
Wellman Manipulator for China... 78
Wellman Order from Czechoslovakia 32
Westinghouse Division. New ... 74
Wild Barfield Vacuum Furnace for China 18
Wilfred Marley to Build Cupola Plants 82
World Metal Trade Meet in London 118
X-Ray Diffraction. A New Application in 33
X-Ray Studies of Metals and Alloys 235
Yield Strength/Ultimate Tensile Strength Ratio 82
Zirconium (I.M.I.) for Winfrith Reactor 199

RECENT DEVELOPMENTS

Abrasive Wheel Cutting-off Machine (A. & S. Osmond, Ltd.) 136
Activated Carbon Filter Pads (W. Canning & Co., Ltd.) 183
Adda-Shield Hard Hat Attachment (Safety Products, Ltd.) ... 291
Adding T.G.A. Capability to D.T.A. Instruments (Cahn Instrument Co., Ltd.) 241
Aerosol Lubricant for Open Gear Systems (Rocol, Ltd.) 132-133
AGA Curvator Flame Cutter (Suffolk Iron Foundry (1920), Ltd.) 184
Air Power Speeds Grinding (3M Company Abrasives Products) 181
Aircraft Steels. New (English Steel Corporation, Ltd.) 240
Anti-Corrosive Wax Coating (Bush Beach & Segner Bayley, Ltd.) 181
Anti-Spatter Coatings for Welding Equipment (Acheson Colloids, Ltd.) 89-90
Atomic Absorption for Faster Analysis (Unicam Instruments, Ltd.) 133
Automatic Polishing Equipment (John Hawley & Co. (Walsall), Ltd.) 90
Automatic Rapid Effluent Treatment Plant (A. M. Lock & Co., Ltd.) 291-292
B-69 Resinoid Bond Diamond Wheels (Norton Abrasives, Ltd.) 240
Balances (Shandon Scientific Co., Ltd.) 41-42
Bearing Material. New (Manganese Bronze, Ltd.) 37
Bench Machine for Precision Lapping (Flexibox, Ltd.)... ... 289-290
Bright Acid Copper Plating Solution (Cruickshanks Division, Forestal Industries (U.K.), Ltd.) 88
Bright Levelling Acid Copper Plating (W. Canning & Co. Ltd.) 87
Cadmium Anodes (Cruickshanks Division of Forestal Industries (U.K.), Ltd.) 241
Cast Nickel-Base Alloy. A (Bristol Siddeley Engines, Ltd.) 290
Ceramic Coatings. Improved (Metco, Ltd.) 184
Coiled Strip. Plant for Handling (Press Equipment, Ltd.) 181-182
Colorimeter (A. Gallenkamp & Co., Ltd.) 239
Contamination Monitor (E.M.I. Electronics, Ltd.) 131
Coolant Clarifier (Philips Filtration Division, The M.E.L. Equipment Co., Ltd.) 85-86
D.C. Potentiometric Recorder. Inexpensive (Fielden Electronics, Ltd.) 88
Desk-Top Calculator (Ether, Ltd.) 294
Durocast Insulating Concrete (Derbyshire Silica Firebrick Co., Ltd., The) 289
Eddy Current Flaw Detection (C.N.S. Instruments, Ltd.) ... 86-87
Electric Transmitters and Receivers (George Kent, Ltd.) 86
Electro-Gas Equipment for Metal Treatment. (Stanelco Industrial Services, Ltd.) 183-184
Elma Counter Type B.4. (Radiatron) 293-294
Eye Protection by Polycarbonate Lenses (William Stephens & Sons, Ltd.) 89
Flame-Spray Material for Hard-Facing (Metco, Ltd.) 37
Flameproof Level Measuring (Fielden Electronics, Ltd.) ... 294
Gas-Fired Bale-O-Matic Furnace (Morganite Thermal Designs, Ltd.) 41
Gas-Fired Melting Furnace (Gas Council, The) 290
Gas Hose-Regulator Connector (Suffolk Iron Foundry (1920), Ltd.) 242
High-Speed, Low-Cost Forming (Torrington Manufacturing Company, The) 133-134

High Speed Snagging Wheel (Norton Abrasives, Ltd.)... ... 289
Incremental Data System (Instron, Ltd.) 242
Induction Generator in Four Versions (Stanelco Industrial Services, Ltd.) 41
Inert Gas Generators. Low Cost (W. C. Holmes, Ltd.) 40
Integral Colour Anodic Finishes for Aluminium (Instituto Sperimentale dei Metalli Leggeri) 291
Iron Castings. Repair of (Wall Colmonoy, Ltd.) 132
Lip-Pour Tilting Furnace (Lees Hall & Sons) 293
Litzka Castellated Beam (Sanders & Forster, Ltd.) 292
Load/Strain Control System (Instron, Ltd.) 134-135
Mass Spectrometer Leak Detector (Edwards High Vacuum, Ltd.) 133
McLeod Vacuum Gauges (The F. J. Stokes Company) 87
Metal Treatment Products (Grant & West, Ltd.) 239
Microphotometer (Hilger & Watts, Ltd.) 85
Miniature Portable Butane Gas Torch, A (Southern Watch and Clock Supplies, Ltd.) 240-241
Molten Salt and Metal Pumps (Funditor, Ltd.) 242
Motivair Mk. 1XB Compressor. Modified (Teddington Engineering Co., Ltd.) 241
Motorised Microscope Foot Control (Bausch & Lomb Optical Co., Ltd.) 38
Nickel Product. New Primary (International Nickel, Ltd.) ... 38
Nickel Solution. New Bright (Cruickshanks Division, Forestal Industries (U.K.), Ltd.) ... 89
Nitrogen Oven (Blue M. Engineering Co.) 242
Non-Flammable Varnish Lubricant (Rocol, Ltd.) 291
Oil Meter. Low-Flow (George Kent, Ltd.) 42
On-Stream Analysis of Materials (Telsec Instruments, Ltd.) ... 239-240
Overcoming Sticking in Hoppers (Hepburn Conveyor Co., Ltd.) 135-136
Oxygen Measurement. New Developments in (Engelhard Industries, Ltd.) 134
Packaged Burners (Urquhart's (1926), Ltd. 131
Packaged Effluent Treatment Plants (Pernix Enthone, Ltd.)... 241-242
Paint Stripper for all Metals (Applied Chemicals, Ltd.) ... 132
Plastic Paste Removes Millscale. New (Surface Treatments, Ltd.) 132
Pneumatic Pressure Switch (Martonair, Ltd.) 86
Portable Welding Shield (Gray-Campling, Ltd.) 182-183
Potentiometric Chart Recorder (Telsec Instruments, Ltd.) ... 40-41
Presses. Power Operated (Apex Construction, Ltd.) 85
Resistance Thermometer Elements (Research & Engineering Controls, Ltd.) 42
Resistance Welding Connectors (Haddon Electric Welding Machines, Ltd.) 183
Royce Processmaster. The (Royce Electric Furnaces, Ltd.) 39
Series TAB and EHV Power Supplies (Ether, Ltd.) 290-291
Shot-Blast Controller (30-98 Co., Ltd. The) 182
Silicon Rectifiers. Small Scale (W. Canning & Co., Ltd.) 40
Single Crystal Diffractometer (Livingston Electronics, Ltd.)... 292-293
Sintered Bearing Material (Morganite Carbon, Ltd.) 42
Spray Guns. New Generation (Binks-Bullows, Ltd.) 289
Straightening by Controlled Deflection (John Macnab (Machinery), Ltd.) 135
Subminiature Absolute-Pressure Transducers. (Wessex Electronics, Ltd.) 183
Surface Roughness Indicator (Rubert & Co., Ltd.)... 42
Tantalum and Niobium Pentalcolates (Rare Metals Division, CIBA (A.R.L.), Ltd.) 90
Temcore (Telcon-Magnetic Cores, Ltd.) 88-89
Temperature and Pressure Indicating Controller (Drayton Controls, Ltd.) 87-88
Temperature Sensors (Wessex Electronics, Ltd.) 131
Temperature Tape (Fisons Scientific Apparatus, Ltd.) 90
Tensile Testing. Automatic Programmed Print-out for (Instron, Ltd.) 38-39
Test Set for Metal Cleaners (Pyrene Co., Ltd. The) 136
Thermocouple Welding Flux (Industrial Instrument Services (B'ham), Ltd.) 37
Time-Delay Units (Ether, Ltd.) ... 182
Traction Battery Chargers (Westinghouse Brake and Signal Co., Ltd.) 292
Transdata Minicard Controllers (George Kent, Ltd.) 88
Transducers Types PP10 and UP5 (Ether, Ltd.) 291
Transfer Feed for Presses (J. P. Udal, Ltd.) 90
Triton Ceramic Fibre Paper (Morganite Refractories (Sales), Ltd.) 87
Tube Bender (Funditor, Ltd.) ... 86
Ultrasonic Cleaners (Radyne, Ltd.) 41
Ultrasonic Cleaning of Electrodes (Electronic Instruments, Ltd.)... 39
Ultrasonic Module Generators (Radyne, Ltd.) 294
Universal Resistance Thermometer Bridge (Wessex Electronics, Ltd.) 131-132
Vacuum Gauge. Easy-to-Use (Edwards High Vacuum, Ltd.) 39-40
Vacuum Precision Casting Plant (Balzars High Vacuum, Ltd.) ... 37-38
Variable Heat Pattern Burner (North American Manufacturing Co., The) 134
Vertical Traverse Crystal Pulling Unit. (Stanelco Industrial Services, Ltd.) 294
Wet Dust Collectors (Midland Heating & Ventilating Co., Ltd.) 136
Wire Tensile Tester (Goodbrand & Co., Ltd.) 37
Workshop Magnifier (P. W. Allen & Co.) 292
Zoned Furnace (National Research Corporation) 293

CURRENT LITERATURE

Book Notices 92, 137-138, 185, 243, 295
Books Received 44, 92, 140, 186, 244, 296
Trade Publications 43-44, 91-92, 138-140, 185-186, 243-244, 295-296

AUTHOR INDEX

Bates, A. P., Ridley, J. and Hunt, D. G. 101-110
Berwick, I. D. G. 218-222
Bessent, R. A. and Howard, P. J. 187-190
Davis, G. L. and Whitehouse, T. 77
Dewey, M. A. P. ... 111-117, 149-154
Dewsnap, P. 257-259
Downie, T. C. and Goulding, C. W. 45-47, 93-97
Duckworth, W. E. 53-63
Elliott, E. 201-210
Foster, W. W. and Harrison, T. S. 141-146, 191-195
Goulding, C. W. and Downie, T. C. 45-47, 93-97
Harrison, T. S. and Foster, W. W. 141-146, 191-195
Howard, P. J. and Bessent, R. A. 187-190
Hunt, D. G., Bates, A. P. and Ridley, J. 101-110
James, B. A. and Morgan, A. ... 98
Lancy, L. E. and Pinner, R.... ... 119-122
Larkin, A. G. 165-166
Marriner, R. S. and Wood, Jill G. 297-300
Morgan, A. and James, B. A. ... 98
Morley, J. I. 223-226
Myers, J. and Willoughby, G. ... 3-7
Pinner, R. and Lancy, L. E.... ... 119-122
Ridley, J., Hunt, D. G. and Bates, A. P. 101-110
Schofield, M. 64-66
Slater, D. 211-217
Toye, T. C. 67-69
White, R. H. 227-232
Whitehouse, T. and Davis, G. L. 77
Williams, P. G. 163-164
Willoughby, G. and Myers, J. ... 3-7
Wood, Jill G. and Marriner, R. S. 297-300